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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,700	09/17/2003	Shinji Kimura	1288.43131X00	3969

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EXAMINER	
MASDON, DAVID T	
ART UNIT	**PAPER NUMBER**
2188	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/663,700	KIMURA ET AL.	
	Examiner	Art Unit	
	David Masdon	2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *6/17/2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/17/03 & 12/9/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) were submitted on 9/17/2003 & 12/9/2005. The submissions are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Drawings

2. The drawings filed on 9-17-2003 have been approved by the examiner.

Claim Objections

3. The claim heading phrase "what we claime" has a misspelling. The word "claim" should be spelled without an 'e'. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1,3,4,11,15 and 19 rejected under 35 U.S.C. 102(e) as being anticipated by Cameron et al (US PGPUB 2003/0163647).

With regard to claim 1, Cameron et al discloses a cache control method in a computer system, in which a storage device, [(storage devices) page 1, section 0018]

a node device including a disk device for cache and clients are connected together for controlling the cache in the disk device, [(adapter may advantageously maintain an internal cache) page 3, section 0032]

comprising the steps of:

in the storage device or the client, sending attribute information of data to the node device, the data being relayed by the node device, [(cache flag for enabling a host-fabric adapter) page 4, section 0034]

the attribute information indicating as to whether or not the data is allowed to be cached in the disk device; [(with a translation cacheable flag) page 1, section 0005]

in the node device, judging as to whether or not the data to be relayed is allowed to be cached in the disk device, based on the attribute information; and [(cacheable flag 720 may be utilized to specify whether the host-fabric adapter 220 may cache addresses) page 4, section 0036]

relaying the data, which has been judged as non-cacheable, without process of the cache in the disk device. [(specify whether the host-fabric adapter 220 may cache addresses) page 4, section 0036]

With regard to claim 3, Cameron discloses a node device that includes a disk device for cache and relays transmission and receipt of data between a storage device and clients, comprising:

an attribute information input module that inputs attribute information of the data to be relayed, which indicates as to whether or not the data is allowed to be cached in the disk device; [(memory access attributes may be used to control read and write access to a given memory region) page 4, section 0035]

a judgment module that judges as to whether or not the data to be relayed is allowed to be cached in the disk device, based on the attribute information; and [(the adapter decides what how to handle data based on translation cacheable flag) page 4, section 0036]

a cache control module that relays the data, which has been judged as non-cacheable, without process of the cache in the disk device. [(transmitting the same (the message or data) via the switched fabric) page 5, section 0043]

With regard to claim 4, Cameron discloses a node device according to claim 3, further comprising:

a volatile memory for the cache, [(usually made up of SRAMs) page 3, section 0032] wherein the cache control module comprises: a memory control module that caches the data in the volatile memory regardless of the data attribute, cacheable or non-cacheable; and [(adapter that contains cache to speed up data transfer) page 3, section 0032]

a transfer control module that migrates the data from the volatile memory to the disk device except for the data, which has been judged as non-cacheable, when a

predetermined condition for the migration is met. [(if data is not cacheable, the adapter may discard an entry from internal cache) page 4, section 36]

Claims 11 & 15 are rejected with the same rationale as claim 3.

Claim 19 is rejected with the same rationale of claim 1.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2,5-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Cameron et al (US 2003/0163647) as applied to claim 1 above, and further in view of Hirotani (US 5,982,887).

Cameron et al does not disclose expressly data encryption. However, Hirotani discloses encrypting and decrypting data in memory. (column 1, lines 42-51)

Cameron et al and Hirotani are analogous art because they are from same field of endeavor, namely data encryption. At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate the data encryption of Hirotani et al into the system of Cameron et al. The motivation for doing so would have been to provide greater security for the data. (Hirotani et al et al; column 1, lines 17-20)

Claim 5 is rejected with the same rationale of claim 2.

Claim 6 is rejected with the same rationale of claim 5. Hirotani et al discloses a CPU to determine whether a program is encrypted. (column 3, lines 56-59)

Claim 7 is rejected with the same rationale of claim 5. Hirotani et al discloses means for decrypting the encrypted program. (column, lines 46-47)

Claim 8 is rejected with the same rationale of claim 7. Cameron et al discloses memory protection tags that are associated with the host memory regions. (page 4, section 0037)

Claim 9 is rejected with the same rationale of claim 8. Cameron et al discloses defining memory regions before an adapter accesses them. (page 1, section 0004)

Claim 10 is rejected with the same rationale of claim 7. Cameron et al discloses an adapter that handles errors. (page 3, section 0029)

Claim 12 is rejected with the same rationale of claim 8.

Claim 13 and 16 are rejected with the same rationale as claim 9.

Claim 14 is rejected with the same rationale of claims 6 & 7.

Claim 17 is rejected with the same rationale of claim 10.

Claim 18 is rejected with the same rationale of claim 17. Cameron et al discloses address translations while providing memory access protection during data transfer operations. (page 1, section 0004)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 5,732,241 – Chan – RANDOM ACCESS CAHCE MEMORY CONTROLLER AND SYSTEM

US 6,032,225 – Shiell et al – MICROPROCESSOR SYSTEM WITH BURSTABLE, NON-CACHEABLE MEMORY ACCESS SUPPORT

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Masdon whose telephone number is (571)272-6815. The examiner can normally be reached on Monday - Friday, 7am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (571)272-4210. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mano Padmanabhan 7/6/06

DM

MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER